WHAT IS CLAIMED IS:

1. A method for the treatment of benign prostatic hyperplasia in a human male, comprising:

inserting a flexible ultrasonic probe into a urethra of the longitudinal axis, a proximal end and a distal end;

extending the ultrasonic probe to an area adjacent an enlarged prostatic lobe;

providing ultrasonic vibrations to the proximal end of ultrasonic probe, the ultrasonic vibrations producing a plurality of nodes and anti-nodes along the length of the ultrasonic probe;

ultrasonically drilling through urethral wall tissue using the ultrasonic probe;

inserting the ultrasonic probe into the interior of a prostate of the human male;

and

reducing tissue of the enlarged prostatic lobe by producing cavitation in prostatic tissue of the enlarged prostatic lobe.

2. The method according to claim 1, wherein:

the step of reducing tissue is performed by deflecting the ultrasonic probe into the prostate while leaving the urethra substantially intact.

3. The method according to claim 1 further comprising the step of removing tissue at the time of treatment.

4. The method according to claim 1 wherein:

the ultrasonic probe directly contacts the enlarged prostatic lobe.

5. The method according to claim 1, further comprising:

applying suction to remove tissue destroyed by the cavitation at the time of treatment.

6. The method according to claim 1, further comprising:
monitoring a location of the ultrasonic probe using ultrasound.

7. The method according to claim 6 wherein:
the ultrasound used to monitor the location of the ultrasonic probe is provided by an ultrasonic probe inserted into a rectum of the human male.

8. The method according to claim 1, wherein:
the step of destroying tissue is performed without thermal effect.

9. The method according to claim 1, further comprising the step of:'
removing prostatic tissue without destroying the urethra.

10. The method according to claim 1, further comprising:
monitoring a temperature of the ultrasonic probe.

11. The method according to claim 1 further comprising:
monitoring a frequency and amplitude of the ultrasonic vibrations and automatically terminating delivery of the ultrasonic vibrations once set frequency and amplitude values have been exceeded.

12. The method according to claim 1 further comprising:
monitoring the amount of tissue removed by monitoring an echogenic motion of the probe and monitoring a void created by the probe.

13. The method according to claim 1, wherein:

the frequency of the ultrasonic vibrations is in the range of 20 khz to 80 khz.

14. The method according to claim 1 wherein:
the amplitude of the ultrasonic vibrations is in the range of 150 microns to 250 microns.

15. The method according to claim 1 wherein:
the ultrasonic probe vibrates in a direction transverse to a longitudinal axis of the ultrasonic probe, and the distal end of the ultrasonic probe has substantially no movement along the longitudinal axis of the probe.

16. The method according to claim 1, wherein:
the flexible probes can be bent and deflected in operation without affecting the ability to produce cavitation.

17. An ultrasonic treatment apparatus comprising:
an ultrasonic probe having an ultrasonic tip; and
an aspiration sheath surrounding the ultrasonic probe, the aspiration sheath forming at a distal end an aspiration port, the aspiration sheath being movable axially relative to the ultrasonic probe.

18. The ultrasonic treatment apparatus of claim 17, wherein:
the ultrasonic probe includes at least one channel on an outer surface of the ultrasonic probe, the at least one channel extending from a proximal end of the ultrasonic probe to a location adjacent the ultrasonic tip.

19. The ultrasonic treatment apparatus of claim 18, wherein:
the aspiration port communicates with the at least one channel.

20. The ultrasonic treatment apparatus of claim 18, wherein:
the ultrasonic probe includes a plurality of channels.

21. The ultrasonic treatment apparatus of claim 18, wherein:
the at least one channel spirals around the outer surface of the ultrasonic probe.

22. The ultrasonic treatment apparatus of claim 17, wherein:
the ultrasonic probe includes an irrigation passage.

23. The ultrasonic treatment apparatus of claim 22, wherein:
the irrigation passage is centrally located in the ultrasonic probe.

24. The ultrasonic treatment apparatus of claim 22, wherein:
the irrigation passage includes at least one lumen on a side of the ultrasonic probe.

25. The ultrasonic treatment apparatus of claim 17, further comprising:
a flexible fiberoptic viewing device attached to the aspiration sheath.

26. The ultrasonic treatment apparatus of claim 17, wherein:
the aspiration sheath is formed of a flexible and resilient material and includes articulation wire so that the aspiration sheath may be controllably articulated.

27. The ultrasonic treatment apparatus of claim 26, wherein:
when the aspiration sheath is controllably articulated, the probe is deflected.

28. The ultrasonic treatment device of claim 17, wherein;

the aspiration port is a lateral slot located on one side of the aspiration sheath.

29. A method for treatment of a prostate in a human male, comprising:

inserting a medical treatment apparatus through the perineum of the human male;

advancing at least a portion of the medical treatment apparatus to the prostate of the human male, and

treating the prostate of the human male using the medical treatment apparatus;

wherein the prostate of the human male is treated using ultrasonics.

30. The method of claim 29, further comprising:

inserting at least a portion of the medical treatment apparatus through a prostatic capsule of the prostate of the human male.

31. The method of claim 30, wherein:

the prostate of the human male is treated to debulk prostatic tissue.

32. The method of claim 30, further comprising:

ultrasonically drilling the prostatic capsule prior to inserting at least a portion of the medical treatment apparatus through the prostatic capsule.

33. The method of claim 29, further comprising:

withdrawing the medical treatment apparatus through the perineum of the human male.

34. A method for the treatment of benign prostatic hyperplasia in a human male, comprising:

providing an ultrasonic probe;

inserting the ultrasonic probe into the interior of an enlarged prostatic lobe of the human male;

and

reducing tissue of the enlarged prostatic lobe by producing cavitation in prostatic tissue of the enlarged prostatic lobe.

35. The method of claim 34, further comprising:

inserting the ultrasonic probe into a urethra of the human male; and

ultrasonically drilling through urethral wall tissue adjacent the enlarged prostatic lobe using the ultrasonic tip prior to inserting the ultrasonic tip into the prostatic lobe.

36. The method according to claim 34, further comprising:

aspirating tissue that is destroyed by cavitation.

37. The method of claim 34, further comprising:

inserting the ultrasonic probe through a perineum of the human male;

and

ultrasonically drilling through the prostatic capsule using the ultrasonic probe prior to inserting the ultrasonic tip into the prostatic lobe

38. The method of claim 34, further comprising:

inserting the ultrasonic probe into the human male transverse to the urethra; and

ultrasonically drilling through the prostatic membrane using the ultrasonic tip prior to inserting the ultrasonic tip into the interior of the prostatic lobe.

39. The method of claim 34, wherein the frequency of the ultrasonic probe is in

the range of 20-80 khz.

40. The method of claim 39, wherein the amplitude of energy provided to the ultrasonic probe is in the range of 150 microns to 250 microns.

41. The method of claim 34 wherein:

the ultrasonic probe vibrates in a direction transverse to a longitudinal axis of the probe.

42. A method for the treatment of benign prostatic hyperplasia in a human male, comprising:

inserting a medical treatment device into an enlarged prostatic lobe of the human male;

and

reducing tissue of the enlarged prostatic lobe while maintaining the temperature of the reduced tissue within $\pm 7^\circ$ C of normal body temperature;

wherein the tissue is removed hemostatically.

43. The method of claim 42, wherein:

the reduced tissue is reduced using ultrasonics.

44. The method of claim 43, wherein:

the ultrasonics reduces the tissue by cavitating the tissue.

45. The method of claim 44, further comprising:

inserting the medical treatment device into a urethra of the human male;

and

inserting the medical treatment device through urethral wall tissue

adjacent the enlarged prostatic lobe prior to inserting the medical treatment device into the interior of the prostatic lobe.

46. The method of claim 42, further comprising:

inserting the medical treatment device through a perineum of the human male;

and

inserting the medical treatment device through a prostatic capsule prior to inserting the medical treatment device into the interior of the prostatic lobe.

47. The method of claim 42, further comprising:

inserting the medical treatment device into the human male transverse to the urethra;

and

inserting the medical treatment device through a prostatic capsule prior to inserting the medical treatment device into the interior of the prostatic lobe.

48. The method according to claim 42, further comprising:

removing the medical treatment device;

and

applying glue into a cavity created by the device to seal the cavity.

604/46 or Treating material into body wound created by instrument

49. An ultrasonic treatment apparatus comprising:

an ultrasonic probe having an ultrasonic tip, the ultrasonic probe including at least one channel on an outer surface of the ultrasonic probe, the at least one channel extending from a proximal end of the ultrasonic probe to a location adjacent the ultrasonic tip.

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604 Channel arrangement

50. The ultrasonic treatment apparatus of claim 49, wherein:
the ultrasonic probe includes a plurality of channels.

51. The ultrasonic treatment apparatus of claim 49, wherein:
the at least one channel spirals around the outer surface of the ultrasonic probe.

52. The ultrasonic treatment apparatus of claim 49, further comprising:
an aspiration sheath surrounding the ultrasonic probe, the aspiration sheath forming at a distal end an aspiration port, the aspiration port communicating with the at least one channel.

53. The ultrasonic treatment apparatus of claim 52, wherein:
the aspiration sheath is movable axially relative to the ultrasonic probe.

54. The ultrasonic treatment apparatus of claim 52, wherein:
the aspiration sheath is formed of a flexible and resilient material and includes an articulation wire so that the aspiration sheath may be controllably articulated.

55. The ultrasonic treatment apparatus of claim 54, wherein:
the aspiration sheath can be used to bend the ultrasonic probe.

56. The ultrasonic treatment apparatus of claim 51, wherein:
the ultrasonic probe includes an irrigation passage.

57. The ultrasonic treatment apparatus of claim 56, wherein:
the irrigation passage is centrally located in the ultrasonic probe.

58. The ultrasonic treatment apparatus of claim 56, wherein:

the irrigation passage includes at least one lumen on a side of the ultrasonic probe.

59. The ultrasonic treatment apparatus of claim 49, further comprising:
a flexible fiberoptic viewing device attached to the probe.

60. The ultrasonic treatment apparatus of claim 49, wherein:
the aspiration port is a lateral slot located on one side of the aspiration sheath.

Amend A3

61. An ultrasonic probe comprising;
an elongate shaft with a longitudinal axis with a recessed portion; the recessed portion bounded at one end with a planar surface.

62. The ultrasonic probe of claim 50 wherein the planar surface is approximately 90° to the longitudinal axis of the elongate shaft.

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